

Amendments to the Claims

1-35. (Canceled)

36. (Currently Amended) A method for detecting the presence of or predisposition to an ectodermal disorder comprising the steps of:

(a) detecting the presence of a human TAJ gene or gene product in a cell of a host predetermined to be at elevated risk of having or being predisposed to a particular ectodermal disorder; and

(b) correlating the presence of the TAJ gene or gene product with a presence of or predisposition to the ectodermal disorder,

wherein the TAJ gene or gene product is a variant correlated with the presence of or predisposition to the ectodermal disorder,

wherein the ectodermal disorder is an ectodermal dysplasia syndrome and the syndrome is Clouston syndrome, and

wherein the detecting step comprises detecting a TAJ gene encoding a truncated TAJ protein mutant of Table 1:

<u>TAJ Mutant</u>	<u>Genetic Lesion</u>	<u>Translation Product</u>	<u>TAJ Structural Defect</u>
<u>hTm106</u>	<u>C deletion at 384</u>	<u>Scr to Stop at 107</u>	<u>Truncation at residue 106</u>
<u>hTm134</u>	<u>T to A at 459</u>	<u>Cys to Stop at 135</u>	<u>Truncation at residue 134</u>
<u>hTm174</u>	<u>C deletion at 589</u>	<u>Cys to Stop at 175</u>	<u>Truncation at residue 174</u>
<u>hTm191</u>	<u>T to A at 639</u>	<u>Tyr to Stop at 192</u>	<u>Truncation at residue 191</u>
<u>hTm212</u>	<u>C to A at 703</u>	<u>Tyr to Stop at 213</u>	<u>Truncation at residue 212</u>
<u>hTm219</u>	<u>T to A at 724</u>	<u>Cys to Stop at 220</u>	<u>Truncation at residue 219</u>
<u>hTm238</u>	<u>CC deletion at 762</u>	<u>Ala to Val at 233</u>	<u>Truncation at residue 238</u>
<u>hTm244</u>	<u>C to A at 799</u>	<u>Cys to Stop at 245</u>	<u>Truncation at residue 244</u>
<u>hTm268</u>	<u>T to A at 871</u>	<u>Cys to Stop at 269</u>	<u>Truncation at residue 268</u>
<u>hTm277</u>	<u>C to T at 896</u>	<u>Arg to Stop at 278</u>	<u>Truncation at residue 277</u>
<u>hTm279</u>	<u>A to T at 902</u>	<u>Arg to Stop at 280</u>	<u>Truncation at residue 279</u>
<u>hTm286</u>	<u>G to T at 923</u>	<u>Glu to Stop at 287</u>	<u>Truncation at residue 286</u>
<u>hTm293</u>	<u>G to T at 944</u>	<u>Gly to Stop at 294</u>	<u>Truncation at residue 293</u>

37. (Currently Amended) A method for detecting the presence of or predisposition to an ectodermal disorder comprising the steps of:

(a) detecting the presence of a human TAJ gene or gene product in a cell of a host

predetermined to be at elevated risk of having or being predisposed to a particular ectodermal disorder; and

(b) correlating the presence of the TAJ gene or gene product with a presence of or predisposition to the ectodermal disorder,

wherein the TAJ gene or gene product is a variant correlated with the presence of or predisposition to the ectodermal disorder, and

wherein the detecting step comprises detecting a TAJ gene transcript encoding a truncated TAJ protein mutant of Table 1:

<u>TAJ Mutant</u>	<u>Genetic Lesion</u>	<u>Translation Product</u>	<u>TAJ Structural Defect</u>
<u>hTm106</u>	<u>C deletion at 384</u>	<u>Scr to Stop at 107</u>	<u>Truncation at residue 106</u>
<u>hTm134</u>	<u>T to A at 459</u>	<u>Cys to Stop at 135</u>	<u>Truncation at residue 134</u>
<u>hTm174</u>	<u>C deletion at 589</u>	<u>Cys to Stop at 175</u>	<u>Truncation at residue 174</u>
<u>hTm191</u>	<u>T to A at 639</u>	<u>Tyr to Stop at 192</u>	<u>Truncation at residue 191</u>
<u>hTm212</u>	<u>C to A at 703</u>	<u>Tyr to Stop at 213</u>	<u>Truncation at residue 212</u>
<u>hTm219</u>	<u>T to A at 724</u>	<u>Cys to Stop at 220</u>	<u>Truncation at residue 219</u>
<u>hTm238</u>	<u>CC deletion at 762</u>	<u>Ala to Val at 233</u>	<u>Truncation at residue 238</u>
<u>hTm244</u>	<u>C to A at 799</u>	<u>Cys to Stop at 245</u>	<u>Truncation at residue 244</u>
<u>hTm268</u>	<u>T to A at 871</u>	<u>Cys to Stop at 269</u>	<u>Truncation at residue 268</u>
<u>hTm277</u>	<u>C to T at 896</u>	<u>Arg to Stop at 278</u>	<u>Truncation at residue 277</u>
<u>hTm279</u>	<u>A to T at 902</u>	<u>Arg to Stop at 280</u>	<u>Truncation at residue 279</u>
<u>hTm286</u>	<u>G to T at 923</u>	<u>Glu to Stop at 287</u>	<u>Truncation at residue 286</u>
<u>hTm293</u>	<u>G to T at 944</u>	<u>Gly to Stop at 294</u>	<u>Truncation at residue 293</u>

38. (Currently Amended) A method for detecting the presence of or predisposition to an ectodermal disorder comprising the steps of:

(a) detecting the presence of a human TAJ gene or gene product in a cell of a host predetermined to be at elevated risk of having or being predisposed to a particular ectodermal disorder; and

(b) correlating the presence of the TAJ gene or gene product with a presence of or predisposition to the ectodermal disorder,

wherein the TAJ gene or gene product is a variant correlated with the presence of or predisposition to the ectodermal disorder, and

wherein the detecting step comprises detecting a truncated TAJ protein mutant of Table

1:

<u>TAJ Mutant</u>	<u>Genetic Lesion</u>	<u>Translation Product</u>	<u>TAJ Structural Defect</u>
<u>hTm106</u>	<u>C deletion at 384</u>	<u>Ser to Stop at 107</u>	<u>Truncation at residue 106</u>
<u>hTm134</u>	<u>T to A at 459</u>	<u>Cys to Stop at 135</u>	<u>Truncation at residue 134</u>
<u>hTm174</u>	<u>C deletion at 589</u>	<u>Cys to Stop at 175</u>	<u>Truncation at residue 174</u>
<u>hTm191</u>	<u>T to A at 639</u>	<u>Tyr to Stop at 192</u>	<u>Truncation at residue 191</u>
<u>hTm212</u>	<u>C to A at 703</u>	<u>Tyr to Stop at 213</u>	<u>Truncation at residue 212</u>
<u>hTm219</u>	<u>T to A at 724</u>	<u>Cys to Stop at 220</u>	<u>Truncation at residue 219</u>
<u>hTm238</u>	<u>CC deletion at 762</u>	<u>Ala to Val at 233</u>	<u>Truncation at residue 238</u>
<u>hTm244</u>	<u>C to A at 799</u>	<u>Cys to Stop at 245</u>	<u>Truncation at residue 244</u>
<u>hTm268</u>	<u>T to A at 871</u>	<u>Cys to Stop at 269</u>	<u>Truncation at residue 268</u>
<u>hTm277</u>	<u>C to T at 896</u>	<u>Arg to Stop at 278</u>	<u>Truncation at residue 277</u>
<u>hTm279</u>	<u>A to T at 902</u>	<u>Arg to Stop at 280</u>	<u>Truncation at residue 279</u>
<u>hTm286</u>	<u>G to T at 923</u>	<u>Glu to Stop at 287</u>	<u>Truncation at residue 286</u>
<u>hTm293</u>	<u>G to T at 944</u>	<u>Gly to Stop at 294</u>	<u>Truncation at residue 293</u>

39-54. (Canceled)